

THE INVENTION CLAIMED IS:

1. An apparatus for cleaning a substrate,
comprising:

5 a plurality of rollers adapted to support a
substrate in a vertical orientation;

a scrubber brush adapted to contact a
substrate supported by the plurality of rollers; and

10 a sonic nozzle positioned at an elevation
below the elevation of the scrubber brush and adapted so as
to output a sonicated fluid spray that contacts a beveled
edge such that fluid having sufficient sonic energy to harm
the scrubber brush will not contact the scrubber brush.

15 2. The apparatus of claim 1 wherein the sonicated
fluid is directed off of the substrate.

20 3. The apparatus of claim 1 wherein the scrubber
brush is adapted to contact a substrate supported by the
plurality of rollers along a diameter of the substrate.

25 4. The apparatus of claim 1 wherein the scrubber
brush is adapted to contact a substrate supported by the
plurality of rollers along a radius of the substrate.

5. The apparatus of claim 1 wherein the scrubber
brush is sponge-like.

30 6. The apparatus of claim 1 wherein the sonicated
fluid spray contacts a beveled edge of a substrate at a
position between the plurality of rollers.

7. An apparatus for cleaning a substrate,
comprising:

a plurality of rollers adapted to support a
substrate in a vertical orientation;

5 a scrubber brush adapted to contact a
substrate supported by the plurality of rollers; and

a sonic nozzle positioned at an elevation
below the elevation of the scrubber brush and adapted so as
to output a sonicated fluid spray that contacts a major
10 surface of a substrate supported by the plurality of rollers
at a position below the roller brush such that fluid having
sufficient sonic energy to harm the scrubber brush will not
contact the scrubber brush.

15 8. The apparatus of claim 7 wherein the sonicated
fluid is directed off of the substrate.

20 9. The apparatus of claim 7 wherein the scrubber
brush is adapted to contact a substrate supported by the
plurality of rollers along a diameter of the substrate.

25 10. The apparatus of claim 7 wherein the scrubber
brush is adapted to contact a substrate supported by the
plurality of rollers along a radius of the substrate.

30 11. The apparatus of claim 7 wherein the scrubber
brush is sponge-like.